What is claimed is:

1. A sample solution that when mixed with a sample,

(a) selectively modifies at least one dielectric property of at least one component of said sample; and

(b) has a conductivity such that one or more moieties of said sample can be separated using dielectrophoretic forces.

2. The solution of claim 1, wherein said sample solution has a low osmolarity.

3. The solution of claim 1, wherein said solution comprises one or more zitterionic compounds.

4. The solution of claim 1, wherein said solution comprises one or more one or more enzymes.

5. The solution of claim 1, wherein said solution comprises one or more detergents.

6. The sample solution of claim 1, wherein said solution comprises one or more specific binding members.

7. The sample solution of claim 2, wherein said sample solution selectively lyses red blood cells.

8. The sample solution according to claim 7, wherein said sample solution comprises glycerol.

9. The solution of claim 8, comprising a concentration of glycerol such that when the solution is mixed with a whole blood sample, the concentration of glycerol in the blood sample-sample solution mixture is from about 0.075% to about 0.085%.

10. The sample solution of claim 7, wherein said sample solution comprises sucrose, mannose, mannitol, or sorbitol.

11. The sample solution of claim 10, wherein said sample solution comprises sucrose.

12. The sample solution of claim 10, wherein the concentration of sucrose in said sample solution is such that when said solution is mixed with a whole blood sample, the concentration of sucrose in the sample solution-blood sample mixture is from about 0.05% to about 0.15%.

13. The sample solution of claim 7, wherein said sample solution does not comprise between 0.7% and 1% ammonium chloride and between 0.5% and 2% potassium bicarbonate.

14. The sample solution of claim 7, wherein said sample solution does not comprise between 0.8% and 1.6% ammonium oxalate.

15. A method of separating one or more moieties of a sample, comprising:

a) adding the sample solution of claim 1 to said sample; and

b) separating one or more moieties of said sample using dielectrophoretic forces.

16. The method of claim 15, wherein said moieties are cells.

17. The method of claim 16, wherein said cells are white blood cells, malignant cells, stem cells, progenitor cells, fetal cells, cells infected with an etiological agent, or bacterial cells.

18. The method of claim 15, wherein said moieties are etiological agents or portions thereof.

19. The method of claim 15, wherein said sample is a blood sample.

20. The method of claim 19, wherein said blood sample is from a human subject.

21. The method of claim 15, wherein said moieties are separated in a chamber that comprises a chip.

22. The method of claim 21, wherein said chamber comprises glass, at least one ceramic, at least one plastic, or at least one polymer.

23. The method of claim 21, wherein said chamber comprises at least one port.

24. The method of claim 23, wherein said chamber comprises at least two ports.

25. The method of claim 23, wherein one or more conduits are linked to at least one port of said chamber.

26. The method of claim 21, wherein said blood sample is added to said chamber by continuous flow.

27. The method of claim 21, wherein said sample solution is added to said chamber by continuous flow.

28. The method of claim 21, wherein said sample solution is added to said chamber before said sample is added to said chamber.

29. The method of claim 21, wherein said sample is added to said chamber before said sample solution is added to said chamber.

30. The method of claim 21, wherein said sample solution is added to said sample prior to adding said sample to said chamber.

31. The method of claim 21, wherein said sample and said sample solution are added to said chamber at the same time.

32. The method of claim 21, wherein said chip comprises at least two electrodes.

33. The method of claim 21, wherein said chip comprises glass, silicon, rubber, plastic, ceramics, or at least one polymer.

34. The method of claim 15, further comprising coupling at least one binding partner to at least one moiety of a sample.

35. The method of claim 34, wherein said at least one binding partner is at least one microparticle.

36. The method of claim 35, wherein said at least one microparticle comprises one or more specific binding members.

37. The method of claim 36, wherein said at least one specific binding member can bind a moiety.

38. The method of claim 36, wherein said one or more specific binding members comprises at least one antibody or antibody fragment.

39. The method of claim 36, wherein said one or more specific binding members comprises biotin, avidin, or streptavidin.

40. The method of claim 36, wherein said at least one or more specific binding members comprises one or more nucleic acid molecules.

41. The method of claim 35, wherein said at least one microparticle comprises metal, ceramics, glass, plastics, carbon, or at least one polymer.

42. The method of claim 35, wherein said microparticles are from 2 microns to 50 microns in diameter.

43. The method of claim 15, wherein said separating is by dielectrophoretic retention, dielectrophoretic migration, dielectrophoretic/gravitational field flow fractionation, traveling wave dielectrophoresis, or 2-D dielectrophoresis.

44. A method of separating one or more moieties from a blood sample, comprising:

a) adding the solution of claim 7 to said blood sample;

b) adding at least one preparation comprising one or more magnetic microparticles to said blood sample;

c) adding said blood sample to an electromagnetic chip; and

d) subjecting said blood sample to electromagnetic forces, such that one or more moieties of interest are selectively retained in one or more areas of said chip.

45. The method of claim 44, wherein said moieties of interest are cells.

46. The method of claim 45, wherein said cells are white blood cells, malignant cells, stem cells, progenitor cells, fetal cells, bacterial cells, or cells infected with an etiological agent.

47. The method of claim 44, wherein said moieties of interest are viruses.

48. The method of claim 44, wherein said moieties of interest comprise one or more proteins.

49. The method of claim 44, wherein said moieties of interest comprise one or more nucleic acid molecules.

50. The method of claim 44, wherein said blood sample is from a human subject.

51. The method of claim 45, wherein said chip comprises at least a part of the source of said electromagnetic forces.

52. The method of claim 44, wherein said magnetic particles comprise one or more specific binding members.

53. The method of claim 52, wherein said one or more specific binding members can bind a moiety.

54. The method of claim 52, wherein said one or more specific binding members comprises at least one antibody or antibody fragment.

55. The method of claim 52, wherein said one or more specific binding members comprises biotin, avidin, or streptavidin.

56. The method of claim 52, wherein said at least one specific binding member comprises one or more nucleic acids.

57. The method of claim 44, wherein said magnetic microparticles comprise metal, ceramics, glass, plastics, or at least one polymer.

58. The method of claim 44, wherein said magnetic microparticles are from 2 microns to 50 microns in diameter.

59. The method of claim 44, wherein said adding at least one preparation comprising one or more magnetic microparticles to said blood samples occurs before adding said blood sample to said electromagnetic chip.

60. The method of claim 44, wherein said adding at least one preparation comprising one or more magnetic microparticles to said blood samples occurs after adding said blood sample to said electromagnetic chip.